

PCT09

#9

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/980,916

DATE: 12/21/2001

TIME: 13:06:23

Input Set : A:\3631-0112P.txt

Output Set: N:\CRF3\12212001\I980916.raw

ENTERED

3 <110> APPLICANT: M&E Biotech A/S

4 Klysner, Steen

6 <120> TITLE OF INVENTION: Method For Down-Regulating IL5 Activity

8 <130> FILE REFERENCE: 3631-0112P

C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/980,916

C--> 11 <141> CURRENT FILING DATE: 2001-10-23

13 <160> NUMBER OF SEQ ID NOS: 65

15 <170> SOFTWARE: PatentIn Ver. 2.1

17 <210> SEQ ID NO: 1

18 <211> LENGTH: 115

19 <212> TYPE: PRT

20 <213> ORGANISM: Homo sapiens

22 <220> FEATURE:

23 <221> NAME/KEY: DISULFID

24 <222> LOCATION: (44)

25 <223> OTHER INFORMATION: Interchain disulphide bond to Cys-86 in SEQ ID

26 NO:1

28 <220> FEATURE:

29 <221> NAME/KEY: DISULFID

30 <222> LOCATION: (86)

31 <223> OTHER INFORMATION: Interchain disulphide bond to Cys-44 in SEQ ID

32 NO:1

34 <400> SEQUENCE: 1

35 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala

36 1 5 10 15

38 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg

39 20 25 30

41 Ile Pro Val Pro Val His Lys Asn His Gln Leu Cys Thr Glu Glu Ile

42 35 40 45

44 Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Thr Val Gln Gly Gly Thr

45 50 55 60

47 Val Glu Arg Leu Phe Lys Asn Leu Ser Leu Ile Lys Lys Tyr Ile Asp

48 65 70 75 80

50 Gly Gln Lys Lys Lys Cys Gly Glu Glu Arg Arg Val Asn Gln Phe

51 85 90 95

53 Leu Asp Tyr Leu Gln Glu Phe Leu Gly Val Met Asn Thr Glu Trp Ile

54 100 105 110

56 Ile Glu Ser

57 115

61 <210> SEQ ID NO: 2

62 <211> LENGTH: 126

63 <212> TYPE: PRT

64 <213> ORGANISM: Artificial Sequence

66 <220> FEATURE:

67 <223> OTHER INFORMATION: Description of Artificial Sequence: Human IL5

68 modified by substitution with tetanus toxoid P2

69 epitope

09980916-021902

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71 <220> FEATURE:
72 <221> NAME/KEY: MUTAGEN
73 <222> LOCATION: (32)..(46)
74 <223> OTHER INFORMATION: Tetanus toxoid P2 epitope (SEQ ID NO: 23)
76 <220> FEATURE:
77 <221> NAME/KEY: SIMILAR
78 <222> LOCATION: (1)..(86)
79 <223> OTHER INFORMATION: Identical to residues 1-86 in SEQ ID NO: 1
81 <220> FEATURE:
82 <221> NAME/KEY: SIMILAR
83 <222> LOCATION: (102)..(126)
84 <223> OTHER INFORMATION: Identical to residues 91-115 in SEQ ID NO: 1
86 <400> SEQUENCE: 2
87 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala
88   1           5           10           15
90 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg
91           20           25           30
93 Ile Pro Val Pro Val His Lys Asn His Gln Leu Cys Thr Glu Glu Ile
94           35           40           45
96 Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Thr Val Gln Gly Gly Thr
97           50           55           60
99 Val Glu Arg Leu Phe Lys Asn Leu Ser Leu Ile Lys Lys Tyr Ile Asp
100  65           70           75           80
102 Gly Gln Lys Lys Lys Cys Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile
103           85           90           95
105 Gly Ile Thr Glu Leu Arg Arg Val Asn Gln Phe Leu Asp Tyr Leu Gln
106           100          105          110
108 Glu Phe Leu Gly Val Met Asn Thr Glu Trp Ile Ile Glu Ser
109           115          120          125
113 <210> SEQ ID NO: 3
114 <211> LENGTH: 118
115 <212> TYPE: PRT
116 <213> ORGANISM: Artificial Sequence
118 <220> FEATURE:
119 <223> OTHER INFORMATION: Description of Artificial Sequence:Human IL5
120     modified by substitution with tetanus toxoid P2
121     epitope
123 <220> FEATURE:
124 <221> NAME/KEY: MUTAGEN
125 <222> LOCATION: (32)..(46)
126 <223> OTHER INFORMATION: Tetanus toxoid P2 epitope (SEQ ID NO: 23)
128 <220> FEATURE:
129 <221> NAME/KEY: SIMILAR
130 <222> LOCATION: (1)..(31)
131 <223> OTHER INFORMATION: Identical to residues 1-31 in SEQ ID NO: 1
133 <220> FEATURE:
134 <221> NAME/KEY: SIMILAR
135 <222> LOCATION: (47)..(118)
136 <223> OTHER INFORMATION: Identical to residues 44-115 in SEQ ID NO: 1

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Input Set : A:\3631-0112P.txt

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138 <400> SEQUENCE: 3

139 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala

140 1 5 10 15

142 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Gln

143 20 25 30

145 Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu Cys Thr

146 35 40 45

148 Glu Glu Ile Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Thr Val Gln

149 50 55 60

151 Gly Gly Thr Val Glu Arg Leu Phe Lys Asn Leu Ser Leu Ile Lys Lys

152 65 70 75 80

154 Tyr Ile Asp Gly Gln Lys Lys Lys Cys Gly Glu Glu Arg Arg Arg Val

155 85 90 95

157 Asn Gln Phe Leu Asp Tyr Leu Gln Glu Phe Leu Gly Val Met Asn Thr

158 100 105 110

160 Glu Trp Ile Ile Glu Ser

161 115

165 <210> SEQ ID NO: 4

166 <211> LENGTH: 124

167 <212> TYPE: PRT

168 <213> ORGANISM: Artificial Sequence

170 <220> FEATURE:

171 <223> OTHER INFORMATION: Description of Artificial Sequence: Human IL5

172 modified by substitution with tetanus toxoid P2

173 epitope

175 <220> FEATURE:

176 <221> NAME/KEY: MUTAGEN

177 <222> LOCATION: (59)..(73)

178 <223> OTHER INFORMATION: Tetanus toxoid P2 epitope (SEQ ID NO:23)

180 <220> FEATURE:

181 <221> NAME/KEY: SIMILAR

182 <222> LOCATION: (1)..(58)

183 <223> OTHER INFORMATION: Identical to residues 1-58 in SEQ ID NO: 1

185 <220> FEATURE:

186 <221> NAME/KEY: SIMILAR

187 <222> LOCATION: (74)..(124)

188 <223> OTHER INFORMATION: Identical to residues 65-115 in SEQ ID NO: 1

190 <400> SEQUENCE: 4

191 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala

192 1 5 10 15

194 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg

195 20 25 30

197 Ile Pro Val Pro Val His Lys Asn His Gln Leu Cys Thr Glu Glu Ile

198 35 40 45

200 Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Gln Tyr Ile Lys Ala Asn

201 50 55 60

203 Ser Lys Phe Ile Gly Ile Thr Glu Leu Val Glu Arg Leu Phe Lys Asn

204 65 70 75 80

206 Leu Ser Leu Ile Lys Lys Tyr Ile Asp Gly Gln Lys Lys Lys Cys Gly

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207          85          90          95
209 Glu Glu Arg Arg Arg Val Asn Gln Phe Leu Asp Tyr Leu Gln Glu Phe
210          100          105          110
212 Leu Gly Val Met Asn Thr Glu Trp Ile Ile Glu Ser
213          115          120
217 <210> SEQ ID NO: 5
218 <211> LENGTH: 124
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Description of Artificial Sequence:Human IL5
224     modified by substitution with tetanus toxoid P2
225     epitope
227 <220> FEATURE:
228 <221> NAME/KEY: MUTAGEN
229 <222> LOCATION: (86)..(100)
230 <223> OTHER INFORMATION: Tetanus toxoid P2 epitope (SEQ ID NO: 23)
232 <220> FEATURE:
233 <221> NAME/KEY: SIMILAR
234 <222> LOCATION: (1)..(85)
235 <223> OTHER INFORMATION: Identical to residues 1-85 in SEQ ID NO: 1
237 <220> FEATURE:
238 <221> NAME/KEY: SIMILAR
239 <222> LOCATION: (101)..(124)
240 <223> OTHER INFORMATION: Identical to residues 90-115 in SEQ ID NO: 1
242 <400> SEQUENCE: 5
243 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala
244 1          5          10          15
246 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg
247          20          25          30
249 Ile Pro Val Pro Val His Lys Asn His Gln Leu Cys Thr Glu Glu Ile
250          35          40          45
252 Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Thr Val Gln Gly Gly Thr
253          50          55          60
255 Val Glu Arg Leu Phe Lys Asn Leu Ser Leu Ile Lys Lys Tyr Ile Asp
256 65          70          75          80
258 Gly Gln Lys Lys Lys Gln Tyr Ile Lys Ala Asn Ser Lys Phe Ile Gly
259          85          90          95
261 Ile Thr Glu Leu Arg Val Asn Gln Phe Leu Asp Tyr Leu Gln Glu Phe
262          100          105          110
264 Leu Gly Val Met Asn Thr Glu Trp Ile Ile Glu Ser
265          115          120
269 <210> SEQ ID NO: 6
270 <211> LENGTH: 126
271 <212> TYPE: PRT
272 <213> ORGANISM: Artificial Sequence
274 <220> FEATURE:
275 <223> OTHER INFORMATION: Description of Artificial Sequence:Human IL5
276     modified by substitution with tetanus toxoid P2

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Input Set : A:\3631-0112P.txt

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277      epitope
279 <220> FEATURE:
280 <221> NAME/KEY: MUTAGEN
281 <222> LOCATION: (110)..(124)
282 <223> OTHER INFORMATION: Tetanus toxoid P2 epitope (SEQ ID NO: 23)
284 <220> FEATURE:
285 <221> NAME/KEY: SIMILAR
286 <222> LOCATION: (1)..(109)
287 <223> OTHER INFORMATION: Identical to residues 1-109 in SEQ ID NO: 1
289 <220> FEATURE:
290 <221> NAME/KEY: SIMILAR
291 <222> LOCATION: (125)..(126)
292 <223> OTHER INFORMATION: Identical to residues 114-115 in SEQ ID NO: 1
294 <400> SEQUENCE: 6
295 Ile Pro Thr Glu Ile Pro Thr Ser Ala Leu Val Lys Glu Thr Leu Ala
296   1             5             10             15
298 Leu Leu Ser Thr His Arg Thr Leu Leu Ile Ala Asn Glu Thr Leu Arg
299             20             25             30
301 Ile Pro Val Pro Val His Lys Asn His Gln Leu Cys Thr Glu Glu Ile
302             35             40             45
304 Phe Gln Gly Ile Gly Thr Leu Glu Ser Gln Thr Val Gln Gly Gly Thr
305             50             55             60
307 Val Glu Arg Leu Phe Lys Asn Leu Ser Leu Ile Lys Lys Tyr Ile Asp
308             65             70             75             80
310 Gly Gln Lys Lys Lys Cys Gly Glu Glu Arg Arg Val Asn Gln Phe
311             85             90             95
313 Leu Asp Tyr Leu Gln Glu Phe Leu Gly Val Met Asn Thr Gln Tyr Ile
314             100            105            110
316 Lys Ala Asn Ser Lys Phe Ile Gly Ile Thr Glu Leu Glu Ser
317             115            120            125
321 <210> SEQ ID NO: 7
322 <211> LENGTH: 132
323 <212> TYPE: PRT
324 <213> ORGANISM: Artificial Sequence
326 <220> FEATURE:
327 <223> OTHER INFORMATION: Description of Artificial Sequence:Human IL5
328      modified by substitution with tetanus toxoid P30
329      epitope
331 <220> FEATURE:
332 <221> NAME/KEY: MUTAGEN
333 <222> LOCATION: (87)..(107)
334 <223> OTHER INFORMATION: Tetanus toxoid P30 epitope (SEQ ID NO: 24)
336 <220> FEATURE:
337 <221> NAME/KEY: SIMILAR
338 <222> LOCATION: (1)..(86)
339 <223> OTHER INFORMATION: Identical to residues 1-86 in SEQ ID NO: 1
341 <220> FEATURE:
342 <221> NAME/KEY: SIMILAR
343 <222> LOCATION: (108)..(132)

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VERIFICATION SUMMARY

DATE: 12/21/2001

PATENT APPLICATION: US/09/980,916

TIME: 13:06:24

Input Set : A:\3631-0112P.txt

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L:10 M:270 C: Current Application Number differs, Replaced Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date

20061220 9T608660